

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Manus P. HENRY et al.

Art Unit : 2863

Serial No.: 09/815,275

Examiner: Unknown

Filed

: March 23, 2001

Title

: PROCESS MONITORING AND CONTROL USING SELF-VALIDATING

**SENSORS** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. A check for \$180 in payment of the late submission fee of §1.17(p) is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

October 21, 2003

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Substitute Form PTO-144 2 1 2003 (Modified)

U.S. Department of Commerce etent and Trademark Office

Attorney's Docket No. 02052-104001

Application No. 09/815,275

Information Disclosure Statement
by Applicant
(Use several sheets if necessary)

Applicant
Manus P. HENRY et al.

(37 CFR §1.98(b))

Filing Date March 23, 2001 Group Art Unit

U.S. Patent Documents	II S	Patent	Docu	iments
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Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,926,364	05/15/1990	Brotherton		1	
	AB	5,570,300	10/29/1996	Henry et al.		\ \ \	O R
	AC	5,680,409	10/21/1997	Qin et al.		300	
	AD	5,774,378	06/1998	Yang			#12 A13
	AE	5,850,625	12/05/1998	Maren et al.		-	ET 230
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Foreign Patent Documents or Published Foreign Patent Applications								
Examiner	Desig.	Document	Publication	Country or			Trans	lation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	/ AF	WO 93/21505	28 OCT 1993	PCT				
	/ AG	EP 0827096	04 MAR 1998	EUROPE				

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner	Desig.	
Initial	ID	Document Document
/	АН	Atia et al., "Self-Validating Temperature Sensor Implemented in FPGAs", Oxford University Dept. of Engineering Science, 1995, pp. 321-330.
1	AI	Henry et al., "The Self-Validating Sensor: Rationale, Definitions and Examples", Dept. of Engineering Science, Univ. of Oxford, Vol. 1, No. 4, 1993, pp. 585-610.
1	AJ /	J. CY. Yang et al., "Control using self-validating sensors", Department of Engineering Science, Univ. of Oxford, Vol. 18, No. 1, 1996, pp. 15-23.
1	AK /	Kresta et al., "Multivariate Statistical Monitoring of Process Operating Performance", Chemical Engineering Dept., McMaster Univ. Ontario, Vol. 69, Feb. 1991, pp. 35-47.
1	AL	MacGregor et al., "Statistical Process Control of Multivariate Processes", Chemical Engineering Dept., McMaster Advanced Control Consortium, McMaster Univ. Vol. 3, No. 3, 1995, pp. 403-414.
/	AM	MacGregor J. F. et al., 1991, Multivariate Statistical Methods in Process Analysis and Control. AlChE Symposium Proceedings of the Fourth International Conference on Chemical Process Control, AlChE Pub. No. P-67, New York, pp. 79-99.
1	AN ′	McFarlane R.C. et al., "Dynamic Simulator for a Model IV Fluid Catalytic Cracking Unit, American Institute of Chemical Engineering, Chicago, IL, 14 Nov. 1990, pp. 1-79.
1	AO/	Moffat R.J., 1982, Contributions to the theory of single sample uncertainty analysis. ASME Journal of Fluids Engineering, Vol. 104, June 1982, pp. 250-260.
1	AP /	Morud T.E., 1996, Multivariate Statistical Process Control; Example from the Chemical Process Industry, <u>Journal of Chemometrics</u> , Vol. 10, Nos. 5 & 6, pp. 669-675.
Ø	AQ /	Qin et al., "Self-Validating Inferential Sensor for Emission Monitoring", Dept. of Chemical Engineering, Univ. of Texas, June 1997, pp. 473-477.
V	AR	Yang J.CY; 1994, "Self-validating Sensors", Dr. of Phil. Thesis, Department of Engineering Science, Univ. of Oxford.

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with

next communication to applicant.

Substitute Disclosure Form (PTO-1449